

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-038

SITE CLEANUP REQUIREMENTS FOR:

SOLA OPTICAL USA INCORPORATED
3600 LAKEVILLE HIGHWAY
PETALUMA
SONOMA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Sola Optical U.S.A., Incorporated, hereinafter called the discharger, owns a 35 acre site in Petaluma, located at 3600 Lakeville Highway. The discharger has been located at this facility since 1978 and produces optical lenses.
2. Site investigations to date indicate the presence of volatile organic compounds in soil and groundwater in shallow water bearing sediments at depths between about 10 and 40 feet below the ground surface. The discharger reported this condition may have resulted from overfilling or spillage at filler pipes of underground solvent tanks. The discharger had six 1,000 gallon underground solvent tanks. These tanks and surrounding soils were excavated in July 1985.
3. On May 15, 1985, the Board adopted Order No. 85-65 prescribing waste discharge requirements for Sola Optical U.S.A. Incorporated, Petaluma, for investigation, identification and remediation of groundwater pollution at their facility.
4. Site investigations conducted by the discharger, including 38 monitoring wells, have not fully defined the extent of groundwater pollution of the affected aquifers(s). The discharger proposed a revised time schedule for completing site investigations and related remediation tasks in June, 1986.

5. In accordance with the revised time schedule, the discharger conducted a soil gas survey and, based in part on the survey, installed six additional monitoring wells. Further in accordance with the revised time schedule, the discharger submitted a technical report dated February 1, 1987 which provided additional geologic, water quality and groundwater flow data. These data indicated the need for further investigation to further define the extent of pollutant migration and possible effects on nearby municipal wells.
6. As part of the regular drinking water well testing required by the Department of Health Services (DOHS) under the AB 1803 program, the City of Petaluma has been sampling usable water supply wells at the discharger's site (Sola Well) and in the vicinity of the discharger's plume (Station 5 Well). Recent samples taken on November 20, December 15, and December 30, 1986 confirmed the presence of 1,1,1-Trichloroethane (TCA) and 1,1-Dichloroethylene (1,1-DCE) in the Station 5 well. In addition, 1,1-Dichloroethane (1,1-DCA) has been detected in samples from the Station 5 well, and methylene chloride (MC) has been detected in the Sola Well. These chemicals are the main constituents in the pollution plume from the discharger's site. It has not been confirmed at this time that the Sola plume is the source of the chemicals in the City's wells.
7. Interim remedial measures should be implemented to alleviate the threat to the environment posed by the continued migration of the groundwater plume of organic solvents and to provide a substantive technical basis for designing and evaluating the effectiveness of final remedial action alternatives.
8. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for South San Francisco Bay and contiguous surface and groundwaters.
9. The existing and potential beneficial uses of the groundwater underlying and adjacent to the site include:
 - a. Municipal and domestic supply
 - b. Industrial process supply
 - c. Industrial service supply
 - d. Agricultural supply

10. The discharger has caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the state and creates or threatens to create a condition of pollution or nuisance.
11. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe Site Cleanup Requirements for the discharge and has provided them with an opportunity for a public hearing and opportunity to submit their written views and recommendations.
13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above finding as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of waters of the State is prohibited.
2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The discharger shall conduct monitoring activities as needed to define the local hydrogeological conditions, and the lateral and vertical extent of the soil and groundwater pollution in and contiguous to the zone of known pollution. Should monitoring results show evidence of plume migration, additional plume characterization may be required.

C. PROVISIONS

1. The discharger shall submit to the Board technical reports on self-monitoring work performed according to a program approved by the Board's Executive Officer.
2. The discharger shall comply with Prohibitions A.1., A.2., and A.3., and Specifications B.1. and B.2. above, in accordance with the following time schedule and tasks:

a. COMPLETION DATE: June 1, 1987

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b.. The report shall summarize the results of an investigation to identify, locate, and evaluate private and public wells which may be impacted by or act as vertical conduits for the migration of pollutants from the discharger's site. The technical report shall evaluate measures which could be taken to mitigate any identified impacts on public or private wells. The report shall include recommendations and a time schedule for implementing any recommended measures to protect beneficial uses.

b. COMPLETION DATE: June 1, 1987

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b defining the horizontal and vertical extent of soil and groundwater pollution onsite.

c. COMPLETION DATE: July 15, 1987

TASK: Submit a technical report to the Executive Officer in accordance with C.4b which contains a recommended interim remedial action plan and a discussion of alternative plans considered in the development of the recommended plan. This report shall consider possible control systems to contain

cleanup and/or treat polluted groundwaters and should include a completed NPDES application to discharge to surface waters, if such discharge is an element of the plan.

d. COMPLETION DATE: May 15, 1988

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b documenting completion of the installation and commencement of operations of the approved interim remedial action plan.

e. COMPLETION DATE: December 1, 1987

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b defining the horizontal and vertical extent of any offsite groundwater pollution. The report shall also evaluate if further interim remedial actions for off-site conditions are necessary.

f. COMPLETION DATE: March 15, 1989

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b which evaluates the effectiveness of the interim remedial action measures as specified in 2c above. If extraction wells are a part of these measures such an evaluation shall include, but need not be limited to, an estimation of the flow capture zones of the extraction wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data. Specific modifications to the system and an implementation time schedule shall be proposed in the event that the hydraulic control system is demonstrated not to be effective in containing and cleaning up the pollutant plume, in accordance with the objectives for the interim remedial measures submitted to and approved by the Executive Officer pursuant to Provision C.2.c.

g. COMPLETION DATE: March 15, 1989

TASK: Submit a technical report to the Executive Officer in accordance with Provision C.4b containing a summary of the results of the remedial investigation conducted pursuant to this Order, an evaluation of alternative final remedial measures,

and a recommendation on which additional measures, if any, should be implemented.

3. Technical reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted monthly to the Board commencing on May 10, 1987 and covering the previous month. On a monthly basis thereafter, these reports shall consist of a letter report that, (1) summarizes work completed since submittal of the previous report, and work projected to be completed by the time of the next report, (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles, and (3), includes, in the event of non-compliance with the Provisions of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on compliance with the remaining requirements of this Order.

On a quarterly basis, commencing with the April 1987 report due May 10, 1987, the monthly report shall include, but need not be limited to, updated water table and piezometric surface maps for all affected water bearing zones, cross-sectional geological maps describing the hydrogeological setting of the site, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures.

4. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer, and indicate the reason for the delay and the anticipated date(s) of compliance.
 - a. Either the Executive Officer or the discharger may request the Board to modify, terminate or revise this Order, any portion of this Order, or any program or plan submitted pursuant to this Order at any time.

- b. The Executive Officer shall review any document which the discharger is required to submit pursuant to this Order. The Executive Officer shall notify the discharger in writing of its approval or disapproval of said document, in a period not to exceed 30 days.

In the event the Executive Officer determines that such a document is not satisfactory and cannot be approved, the Executive Officer shall submit to the discharger his review and evaluation of said document, setting forth the reasons for its disapproval and any recommended changes. Unless otherwise specified, within thirty (30) days of receipt of said review and evaluation, the discharger shall submit to the Executive Officer for approval a revised document addressing the Executive Officer's comments.

5. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist, or professional engineer.
6. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:
 - a. City of Petaluma-Public Works Department
 - b. Sonoma County Environmental Health Department
 - c. State Dept. of Health Services, Sanitary Engineering, Santa Rosa Branch
 - d. State Water Resources Control Board-Geologist

Additionally, the Executive Officer may require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to be provided to a local repository for public use.

7. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

8. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises, owned or controlled by the discharger, in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
9. The discharger shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
10. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
11. The discharger shall report any spill of oil or hazardous material at this site. Spills shall be reported to this Regional Board, at (415) 464-1255 on weekdays during office hours from 8 AM to 5 PM, immediately after occurrence. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention and Containment Plan (SPCP) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons notified.
12. The Board will review this Order periodically and may revise the requirements when necessary.

13. Regional Board Order No. 85-65 is no longer applicable and is hereby rescinded, but shall remain in effect until A.C.L. No. 87.03 is resolved.

I, Roger B. James, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 15, 1987.

A handwritten signature in cursive script, appearing to read "Roger B. James", is written over a horizontal line.

ROGER B. JAMES
Executive Officer